

REMARKS

Claim 3 has been canceled, and claim 4 has been amended to depend only from claim 1. Claim 5 has been amended to incorporate the recitations of claim 35, and claim 35 has been canceled accordingly. Claim 7 has been amended to place it in independent form including the recitations of claim 5 prior to the above amendment of claim 5. Claim 34 has been amended to recite "consists of" language. Claim 36 has been added based on original claim 8 and the disclosure at, e.g., pages 5-7 in the specification, and claim 37 has been added based on, e.g., the Examples in the specification.

Entry of the above amendment is respectfully requested.

Interview with Examiner

Applicants thank the Examiner for the personal interview held on October 17, 2007. Applicants believe that the interview has materially advanced the prosecution of this application. A Statement of Substance of Interview is being submitted concurrently herewith.

Art Rejections

On page 2 of the Office Action, in paragraph 4, claims 1, 3, 4, 33 and 34 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Daido et al (US 6,291,106). On page 3 of the Office Action, in paragraph 5, claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daido et al (US 6,291,106) in view of Shinohara et al (US 6,447,958). On page 4 of the Office Action, in paragraph 6, claims

5-7 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daido et al (US 6,291,106) in view of Tsutsumi et al (US 5,571,875). On page 5 of the Office Action, in paragraph 7, claims 1, 3-6, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al (US 6,447,958) in view of Cieslak et al (US 5,002,843).

Applicants respectfully submit that the present invention is neither anticipated by nor obvious over the cited references alone or in combination, and request that the Examiner reconsider and withdraw these rejections in view of the following remarks.

With respect to claim 1, Applicants submit that the cited references are completely silent concerning the parameters relating to the gas permeability retention, cross-sectional pore laminar coefficient and the specific Young's modulus. In this regard, Applicants are considering filing a Rule 132 Declaration to demonstrate that the description "a gas-permeable film having numerous open pores" in the Daido et al reference at column 7, lines 33-40, refers to only a film of the structure in which perforated pores are formed and does not include a film of the porous structure according to the present invention, and a Request for Suspension of Action has been filed accordingly. Further, Applicants note the statement in the Interview Summary that the combined teachings of Shinohara and Cieslak do not achieve the claimed invention.

Regarding to claim 5, Applicants note that this claim has been amended to recite the feature that the inorganic whiskers have a long axis dimension L of 10 - 100 μ m. As stated in the Interview Summary, the Examiner recognized that this feature is not disclosed or suggested in Shinohara. In this regard, Applicants note that Shinohara discloses, at column 5, lines 10-13, that the separator and coated surface may become fragile when the average particle size of the

primary particle of ceramic powder is over 1.0 μ m. Further, Applicants note that Shinohara is silent concerning a parameter regarding the specific Young's modulus.

As to amended claim 7, Applicants submit that Shinohara does not disclose inorganic whiskers having the all features as defined in this amended claim. Also, Applicants submit that Shinohara is silent concerning a parameter relating to the specific Young's modulus. Further, Applicants note the statement in the Interview Summary that the Tsutsumi does not teach the use of the inorganic whisker with the m-aramid resin but rather the polyimide based resin.

In regard to claim 34, Applicants note that this claim has been amended to recite that the battery separator "consists of" a porous film according to any one of claims 1, and 4-7. Applicants submit that Daido does not teach or suggest such a structure, since Daido discloses a coating on its reinforcing material.

With respect to new claims 36 and 37, Applicants submit that they are patentable over the cited prior art as well. In this regard, Applicants submit that the porous film of the new claim 36 is prepared by a specific production process and has specific parameters not taught by any of the cited references.

Thus, Applicants submit that the present invention is patentable over the cited art, and withdrawal of the rejections is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

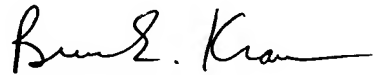
AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 10/776,184

Attorney Docket No.: Q79839

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: October 31, 2007



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q79839

Takao OHNO, et al.

Appln. No.: 10/776,184

Group Art Unit: 1771

Confirmation No.: 3094

Examiner: Hai Vo

Filed: February 12, 2004

For: POLYMETAPHENYLENE ISOPHTHALAMIDE-BASED POLYMER POROUS FILM,
PROCESS FOR ITS PRODUCTION AND BATTERY SEPARATOR

STATEMENT OF SUBSTANCE OF INTERVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please review and enter the following remarks summarizing the interview conducted on
October 17, 2007:

REMARKS

During the interview, the following was discussed:

1. Brief description of exhibits or demonstration: Yes, drawings of the porous films with different pore structures from Daido and the present invention (see attached).
2. Identification of claims discussed: 1, 3, 5 and 35.
3. Results of Interview: Applicant's representative argued that the product of Daido is structurally different from the claimed product in terms of the cross-sectional pore laminar coefficient. A declaration or another factual evidence may be provided to support the open pore structure of the gas permeable film. Shinohara does not teach or suggest an inorganic whisker

having a length from 10 to 100 microns. Tsutsumi does not teach the use of the inorganic whisker with the m-aramid resin but rather the polyimide based resin. Cieslak teaches m-aramid fibers; the combined teaching of Shinohara and Cieslak do not achieve the claimed invention. Incorporation of the limitations from claim 35 to either claim 5 or claim 1 will be sufficient to overcome Shinohara. The recitation of "consisting of" in claim 34 would exclude Daido.

It is respectfully submitted that the instant STATEMENT OF SUBSTANCE OF INTERVIEW complies with the requirements of 37 C.F.R. §§1.2 and 1.133 and MPEP §713.04.

It is believed that no petition or fee is required. However, if the USPTO deems otherwise, Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

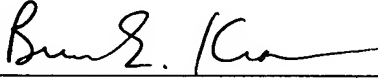
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Date: October 31, 2007

A porous film (Present Invention)

Having a porous structure with a cross-sectional pore laminar coefficient of 2.5 or greater



A non-woven fabric formed of a fiber (the porous reinforcing material in Daido)
Same as the non-woven fabric sheet of examples in Daido



A woven fabric of a fiber (the porous reinforcing material in Daido)



A gas-permeable paper-like sheet of a fiber in which synthesis pulp is dispersed
in gaps of a fiber (the porous reinforcing material in Daido)



A gas-permeable film having numerous open pores
(the porous reinforcing material in Daido)



Daido(US6,291,106 B1) column 7 line33-40

The form of the porous reinforcing material satisfying the above properties includes a non-woven fabric formed of a fiber of the above polymer, a woven fabric of said fiber, a gas-permeable paper-like sheet of said fiber in which synthesis pulp of said polymer is dispersed in gaps of said fiber, and a gas-permeable film of the above resin having numerous open pores.